

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1912.

DISTRICT NO. 4, THE LAKE REGION.

Prof. HENRY J. COX, District Editor.

GENERAL SUMMARY.

As a rule, the month in the Lake Region was warmer and wetter than is usual for September. Except in the southwestern sections, the number of cloudy and rainy days was unusually large, and as a result of the frequent rains outdoor work in many localities was seriously hindered and grain and root crops suffered considerable injury through rotting. Thunderstorms were comparatively frequent, especially during the first part of the month, when temperatures were high, and in a number of instances local damage of greater or less extent was reported. On the 15th a tornado passed north of Syracuse, N. Y., causing the loss of three lives and great destruction of property. A report descriptive of this storm follows in a separate article. Relative humidity, which had been excessive during the two preceding months, remained high during September, especially over the northern and eastern portions of the district.

The following table summarizes the chief features of meteorological interest in the various portions of the district:

Portions of States.	Mean temperature.	Departure.	Mean daily range.	Mean precipitation.	Departure.	Greatest precipitation in 24 hours.	Mean snowfall.	Number of days.				Prevailing wind direction.
								With 0.01 inch or more.	Clear.	Partly cloudy.	Cloudy.	
Minnesota.....	75.6	+0.3	16.0	2.71	-1.36	1.16	1.4	8	11	9	10	ne
Wisconsin.....	60.6	+0.6	14.8	4.39	+1.13	3.30	T.	11	14	8	8	sw.
Illinois.....	67.0	+3.1	16.3	4.18	+1.06	2.98	0	11	14	8	8	sw.
Indiana.....	66.6	+1.7	20.3	3.07	-0.12	2.24	0	8	16	8	6	sw.
Upper Michigan.	57.2	+1.3	15.5	3.19	+0.11	2.40	T.	11	11	11	11	w.
Lower Michigan.	63.2	+1.5	17.2	3.49	+0.68	2.40	T.	10	10	11	9	sw.
Ohio.....	66.8	+1.8	15.8	3.27	+0.31	3.10	0	9	14	9	10	sw.
Pennsylvania.....	66.2	+2.3	13.4	4.59	+1.10	1.43	0	13	7	13	10	s.
New York.....	60.9	+0.6	16.0	4.97	+2.10	2.48	T.	15	8	10	12	sw.
Vermont.....	57.2	-0.2	17.5	5.29	+2.28	2.09	T.	17	6	10	14	s.

TEMPERATURE.

Over the southern and central portions of the district the monthly mean temperatures averaged between 1° and 2° above the normal for the season, the excess decreasing thence to values somewhat below normal over the western Lake Superior region and also over the sections of northeastern New York and the Champlain Valley. The absolute range in temperature for the district was 82°—from 100°, at Howe, Ind., on the 9th to 18°, at Watersmeet, in Upper Michigan, on the 28th.

Warm weather, which prevailed over the southern and middle portions of the district at the opening of the month, became general by the 3d, and temperatures continued high thereafter until the end of the first decade. The warmest weather of the month occurred during this time, which, in fact, was in many localities

the hottest 10-day period of the summer. The prevailing high humidity, together with the high temperature caused pronounced sultriness, and occasioned a number of cases of prostrations, especially in the larger cities.

After the first decade the following two weeks were marked by moderate temperatures, with no sharp or sudden alterations, but a decided change to cooler weather occurred after the 25th. Frosts or freezing temperatures were experienced in practically all portions of the district during the closing days of the month, being destructive over the northern portions of the Lake region, but as a rule causing only slight damage over southern and eastern sections.

PRECIPITATION.

Precipitation was quite unevenly distributed in amount being exceptionally heavy in areas to the west of Lake Michigan and in the extreme eastern portions of the district, while it was below normal in the western Lake Superior region and in sections to the east and south of Lake Erie, as well as in localities of Lower Michigan. On the average the greatest amounts of precipitation fell over eastern New York and the Champlain Valley, where the totals for the month exceeded the September normal by more than 2 inches.

In point of time precipitation was frequent in practically all portions of the district, and especially so during the last two weeks. There was, moreover, no day during the entire month on which precipitation did not occur in some portion of the Lake region, while the 1st and 2d, 4th and 5th, 8th to 11th, 13th to 23d, and 25th to 30th were periods of quite heavy precipitation, more or less general in extent.

During the cold spell of the last week snow fell at a number of stations over the extreme northern and eastern sections, but was generally inappreciable in amount, except in northeastern Minnesota.

SEPTEMBER, 1912—LAKE LEVELS.

The following data are from the report of the United States Lake Survey:

	Lake Superior.	Lakes Michigan and Huron.	Lake Erie.	Lake Ontario.
Above tidewater at New York.....	Feet. 602.53	Feet. 580.67	Feet. 572.48	Feet. 246.38
Above or below:				
Stage of August, 1912.....	+0.04	+0.09	+0.03	-0.28
Stage of September, 1911.....	+0.35	+1.03	+0.96	+1.50
Mean stage September last 10 years.....	-0.27	-0.19	+0.07	+0.36
Highest recorded stage.....	-1.55	-2.70	-1.46	-1.23
Lowest recorded stage.....	+1.04	+0.95	+1.20	+2.38
Probable change during October.....	0.00	-0.20	-0.20	-0.20

TABLE 1.—Climatological data for September, 1912. District No. 4, Lake Region.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.				Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.			Number of cloudy days.
<i>Minnesota.</i>																				
Cloquet.....	Carlton.....	800	1	54.1	.....	90	5	24	28	38	2.21	.....	0.83	.....	6	7	10	13	e.	W. H. Kenety.
Duluth.....	St. Louis.....	1,133	41	54.8	- 1.9	80	7	30	29	27	1.80	- 1.75	0.76	0.1	11	11	11	8	ne.	U. S. Weather Bureau.
Floodwood.....	do.....	1,257	6	.....	.....	.....	.....	.....	.....	.....	2.01	.....	0.85	.....	13	2	15	.....	M. H. Schussler.	
Stephens Mine.....	do.....	1,500	5	55.6	.....	91	6	23	27	39	3.56	.....	0.80	2.0	8	16	5	9	w.	Oliver Iron Mining Co.
Two Harbors.....	Lake.....	614	18	57.0	+ 0.8	82	6†	27	27	30	2.18	- 2.44	0.80	0	9	16	5	9	w.	G. W. Watts.
Virginia.....	St. Louis.....	1,434	18	56.3	+ 1.9	90	5	29	28	37	4.48	+ 0.12	1.16	3.5	10	8	9	13	s.	Oliver Iron Mining Co.
<i>Wisconsin.</i>																				
Appleton.....	Outagamie.....	795	11	62.6	+ 0.5	94	9	32	29	28	2.88	+ 0.16	0.65	0	14	16	9	5	sw.	Wm. O. Thiede.
Ashland.....	Ashland.....	647	21	58.1	- 2.3	84	5	26	28	38	1.00	- 2.13	0.43	0	9	18	4	8	sw.	Sam Wheeler.
Bayfield.....	Bayfield.....	635	3	59.4	.....	86	5	33	27	28	4.46	.....	1.58	T.	10	19	0	11	nw.	Frank Kern.
Cecil.....	Shawano.....	804	14	61.1	+ 1.7	91	5	30	29	30	4.09	+ 1.21	1.33	0	9	15	9	6	se.	Louis W. Schmidt.
Cornucopia.....	Bayfield.....	0	0	56.4	.....	82	4	30	28	31	2.22	.....	0.72	T.	12	13	10	7	ne.	Reed Fruit Co.
Crandon.....	Forest.....	1,060	17	57.8	+ 0.0	88	5†	26	28	34	2.70	- 0.86	1.46	T.	11	14	4	12	se.	Frank Shoemaker.
Florence.....	Florence.....	1,293	21	56.8 ^b	+ 0.2	90 ^b	9	24	28	38 ^b	2.25	- 1.02	0.66	T.	7	14	4	12	ne.	Fred S. Evans.
Fond du Lac.....	Fond du Lac.....	800	26	63.3	+ 2.1	93	5†	27	29	35	4.91	+ 2.05	0.95	T.	13	18	6	6	w.	Edward A. Seeley.
Grand River Locks.....	Marquette.....	770	16	62.4	.....	92	9†	29	29	29	5.52	+ 1.66	1.07	0	13	19	6	5	w.	Jerry Parkinson.
Green Bay.....	Brown.....	617	26	61.3	+ 2.1	90	9	35	29†	25	4.70	+ 1.58	1.01	0	13	7	14	9	se.	U. S. Weather Bureau.
High Falls.....	Marquette.....	810	0	59.1	.....	92	9	25	29	36	4.46	.....	1.79	0	11	10	12	8	se.	No. Hydro-Elec. Power Co.
Iron River.....	Bayfield.....	1,096	3	57.2	.....	95	5	27	27	35	2.83	.....	0.70	0	13	18	7	5	s.	Winfield E. Tripp.
Kewaunee.....	Kewaunee.....	590	3	60.2	.....	88	4†	32	27	34	3.97	.....	0.74	0	9	11	9	10	s.	Eugene V. Kimball.
Manitowoc.....	Manitowoc.....	616	61	61.0	+ 1.2	90	9	33	27	25	3.44	+ 1.33	0.83	0	11	6	12	12	sw.	Miss Johanna Lüps.
Menasha.....	Winnebago.....	764	15	.....	.....	.....	.....	.....	.....	.....	3.72	+ 0.65	0.86	T.	11	18	6	6	sw.	Geo. T. Allanson.
Menomonee Falls.....	Waukesha.....	842	3	61.4	.....	89	9†	33	27†	31	6.51	.....	1.66	0	13	15	8	7	sw.	Arthur H. Christman.
Milwaukee.....	Milwaukee.....	681	42	64.1	+ 2.6	94	5	38	29	26	5.84	+ 2.92	3.08	0	12	14	8	8	sw.	U. S. Weather Bureau.
New London.....	Outagamie.....	762	16	61.2	+ 0.6	92	5	30	29	30	3.04	- 0.25	0.75	0	10	14	5	11	ne.	August H. Pape.
Oconto.....	Oconto.....	590	21	60.9	+ 0.1	90	9	31	29	27	4.85	+ 1.85	1.56	0	10	12	12	6	w.	Wm. K. Smith.
Oshkosh.....	Winnebago.....	744	23	61.6	- 0.9	93	9	30	29	32	5.12	+ 2.46	1.41	T.	11	17	9	4	sw.	Evan Vincent.
Pine River.....	Waushara.....	900	17	61.6	+ 0.5	92	9	30	29	29	5.36	+ 2.40	2.45	0	11	9	18	3	sw.	Geo. H. Carpenter.
Plum Island.....	Door.....	588	4	60.4	.....	86	6	36	29†	24	4.65	.....	1.20	0	13	9	3	18	s.	Geo. C. Robinson.
Plymouth.....	Sheboygan.....	843	2	61.0	.....	90	5†	33	27	26	7.03	.....	2.32	0	14	14	9	7	nw.	Paul O. Feldrappe.
Port Washington.....	Ozaukee.....	713	19	62.7	+ 1.5	96	5	35	28	28	3.57	+ 2.23	1.10	0	10	13	5	12	se.	Richard C. Kann.
Racine.....	Racine.....	633	15	65.2	+ 0.9	98	5	37	27†	27	3.87	+ 0.24	1.43	0	10	15	6	9	nw.	Daniel Davis.
Ripon.....	Fond du Lac.....	935	2	62.5 ^b	.....	92 ^a	8	34 ^b	29	30 ^b	4.91	.....	1.44	0	10	17	6 ^a	6 ^a	se.	Ripon College.
Sheboygan.....	Sheboygan.....	831	13	63.2	+ 1.2	94	9	36	27†	26	7.74	+ 4.64	3.30	0	11	12	6	6	se.	Louis C. Meyer.
Sturgeon Bay.....	Door.....	600	13	59.4	- 0.4	86	5	31	27†	30	8.52	.....	2.11	0	13	12	6	12	ne.	Adam N. Dier.
Superior.....	Douglas.....	671	3	55.2	.....	82	7	30	27†	29	2.28	.....	0.78	0	11	16	8	6	ne.	Edward B. Banks.
Waupaca.....	Waupaca.....	857	17	60.7	- 0.2	93	9†	25	29	35	3.51	+ 0.26	0.80	T.	15	15	6	9	sw.	James H. Flagg.
<i>Illinois.</i>																				
Chicago.....	Cook.....	823	42	67.7	+ 3.1	94	5	39	26	26	3.26	+ 0.24	1.40	0	11	13	10	7	sw.	U. S. Weather Bureau.
Evanston.....	do.....	601	.....	66.4	.....	96	5	30	26	30	3.60	+ 0.56	1.07	0	10	14	7	9	.....	City of Evanston.
Highland.....	Lake.....	691	1	.....	.....	.....	.....	.....	.....	.....	5.69	+ 2.37	2.98	0	11	.....	.....	.....	.....	Jesse L. Smith.
<i>Indiana.</i>																				
Auburn.....	Dekalb.....	874	16	64.4	+ 1.7	93	10†	30	30	34	2.63	- 0.02	0.68	0	7	13	6	11	sw.	Mrs. Josie B. Kuhlman.
Berne.....	Adams.....	849	3	66.8	.....	94	10	31	30	31	3.27	.....	1.14	0	8	19	7	4	nw.	Henry M. Reusser.
Elkhart.....	Elkhart.....	801	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	9	12	11	7	sw.	Dr. Miles Medical Co.
Fort Wayne.....	Allen.....	856	16	66.2	+ 0.7	94	5	35	30	29	1.94	- 1.27	0.60	0	9	12	11	7	sw.	U. S. Weather Bureau.
Hammond.....	Lake.....	598	21	68.4	+ 2.8	97	5†	34	30	37	3.78	+ 0.94	0.98	0	10	11	14	5	.....	Carson W. Whitney.
Howe.....	Lagrange.....	886	7	68.2	.....	100	9	34	27	40	1.84	.....	0.50	0	6	23	1	6	.....	James P. Zook.
Notre Dame.....	St. Joseph.....	712	1	65.3	.....	92	10	36	30	30	3.89	.....	2.07	0	9	16	11	3	sw.	U. S. Weather Bureau.
Whiting.....	Lake.....	606	3	66.9	.....	95	6†	35	30	29	4.16	.....	2.24	0	10	14	9	7	sw.	D. H. Boyd.
<i>Michigan—Upper Peninsula.</i>																				
Baraga.....	Baraga.....	623	10	.....	.....	.....	.....	.....	.....	.....	2.10	0.0	0.40	0	8	7	0	23	w.	D., S. S. & A. Ry.
Bergland.....	Ontonagon.....	1,300	2	58.4	.....	90	5	22	28	44	3.20	.....	0.67	T.	12	16	7	7	s.	Frank McMonigal.
Blaney.....	Schoolcraft.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Calumet.....	Houghton.....	1,246	24	55.7	+ 0.3	84	5	32	27†	24	2.87	- 0.76	0.68	0.5	12	12	6	12	w.	E. S. Grierson.
Chatham.....	Luce.....	875	11	55.5	+ 0.5	88	9	21	29	42	3.92	+ 0.01	1.47	T.	11	12	8	10	n.	Upper Peninsula Exp. Sta.
Deer Park.....	Alcona.....	610	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Sarah E. McGaw.
Detour.....	Chippewa.....	585	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eagle Harbor.....	Keweenaw.....	622	13	56.8	+ 0.8	80	9	30	28	26	3.14	- 0.22	0.80	T.	12	11	13	6	w.	John Nolen.
Escanaba.....	Delta.....	612	39	57.6	+ 0.7	87	6	30	27	28	3.88	+ 0.30	1.71	0	12	8	7	15	s.	U. S. Weather Bureau.
Ewen.....	Ontonagon.....	1,147	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. B. Hatfield.
Grand Marais.....	Alger.....	610	11	58.3	+ 0.9	82	6	35	30	26	2.84	+ 0.40	1.00	0	11	13	5	12	s.	Mrs. Lena Truedell.
Green.....	Ontonagon.....	622	1	63.6	.....	86	1	27	27	24	2.60	.....	1.20	0	5	17	2	11	nw.	T. A. Green.
Houghton.....	Houghton.....	688	11	56.4	- 0.1	82	6	31	28	27	2.33	- 1.21	0.71	0.8	12	7	8	15	w.	U. S. Weather Bureau.
Humboldt.....	Marquette.....	1,538	15	55.8	+ 2.6	89	6	20	28	42	.....	.....	.....	T.	.....	13	0	17	w.	D., S. S. & A. Ry.
Iron Mountain.....	Dickinson.....	1,111	11	58.7	+ 2.4	92	9	27	28†	39	3.75	+ 0.92	1.76	T.	11	8	16	6	nw.	Chapin Mining Co.
Iron River.....	Iron.....	1,520	9	58.6	+ 2.1	91	5	22	28†	40	2.45	- 1.34	0.65	T.	6	11	18	1	nw.	Victor D. Laing.
Ironwood.....	Gogebic.....	1,520	9	58.9	.....	91	5	26	28	32	4.02	.....	1.55	T.	9	21	3	6	sw.	J. V. Brennan.
Ishpeming.....	Marquette.....	1,538	1																	

TABLE 1.—Climatological data for September, 1912. District No. 4—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.			Number of cloudy days.
Ohio—Continued.																				
Cleveland (2)	Cuyahoga	754	15	66.2	+ 1.5	91	1	40	30	26	3.37	+ 0.19	1.21	0	12	13	9	8	se.	Rev. F. L. Odenbach, S. J.
Conneaut	Ashtabula	675	2	68.4	.....	88	1	37	30	30	7.91	.....	3.10	0	13	12	2	16	sw.	E. L. Ransom.
Findlay	Hancock	776	10	67.6	+ 0.7	95	9†	30	30	39	2.24	- 0.60	0.75	T	9	10	5	5	sw.	Dr. E. A. Moser.
Fremont	Sandusky	628	10	67.6	+ 1.7	95	9†	31	30	43	3.35	+ 0.45	0.95	0	9	20	7	4	sw.	E. Stanley Thomas.
Hedges	Paulding	725	18	67.0	+ 1.3	95	9†	31	30	35	3.33	+ 0.30	1.03	0	13	20	5	5	sw.	Charles Stutzman.
Hillhouse	Lake	997	19	65.0	+ 2.2	88	1†	33	30	32	3.40	+ 0.48	1.16	0	13	13	4	4	sw.	J. W. Doncaster.
Hiram	Portage	1,260	32	65.0	+ 2.5	90	2†	32	30	33	3.31	+ 0.02	2.84	0	11	11	17	2	sw.	Prof. G. H. Colton.
Hudson	Summit	1,123	51	67.9	+ 3.9	94	10	32	30	33	5.51	+ 2.16	2.10	0	12	10	9	2	sw.	Dr. W. I. Chamberlain.
Lima	Allen	875	24	66.5 ^b	+ 1.6	92 ^a	6	32	30	32 ^d	3.80	+ 0.22	0.70	0	12	21	1	2	sw.	Miss Ollie De Long.
Medina	Medina	944	20	66.5	+ 1.3	95	10	31	30	37	3.80	+ 1.06	1.27	0	11	17	5	2	sw.	F. W. Clark.
Montpelier	Williams	880	25	67.6	+ 3.8	93	5†	33	30	35	4.48	+ 0.50	0.64	0	9	16	4	1	ne.	A. C. Lacer.
Napoleon	Henry	680	25	66.4	+ 1.1	93	11	35	30	39	2.20	+ 0.46	0.68	0	10	11	13	3	sw.	G. C. Senter.
New Bremen	Auglaize	1,038	19	66.4	+ 0.3	92	2†	32	30	35	3.40	+ 0.20	1.00	0	10	16	12	2	sw.	Miss Lillian Grothaus.
North Royalton	Cuyahoga	1,000	19	66.0	+ 0.7	92	10	34	30	30	3.20	+ 3.28	2.18	0	12	7	13	10	w.	W. S. Edgerton.
Norwalk	Huron	719	24	67.3	+ 2.2	97	10	32	30	37	3.61	+ 0.87	0.82	0	12	7	13	10	w.	Giles R. Gregory.
Oberlin	Lorain	855	37	67.0	+ 2.9	95	10	37	30	32	2.76	+ 0.08	0.62	0	11	8	16	8	sw.	Prof. F. F. Jewett.
Ottawa	Putnam	720	19	66.8	+ 0.9	93	6	32	30	39	2.39	+ 0.35	1.40	0	12	8	16	8	sw.	Prof. J. T. Mallow.
Sandusky	Erie	629	35	66.8	+ 1.5	92	2	40	30	27	2.79	+ 0.11	0.91	0	11	9	9	9	sw.	U. S. Weather Bureau.
Tiffin	Seneca	775	30	69.1	+ 4.1	95	2	37	30	32	2.66	+ 0.09	0.86	0	9	17	7	7	sw.	Prof. T. H. Sonnedecker.
Toledo	Lucas	769	41	67.0	+ 2.9	94	10	39	27	26	2.69	+ 0.33	1.48	0	17	17	6	6	sw.	U. S. Weather Bureau.
Upper Sandusky	Wyandot	854	29	66.6	+ 0.8	92	2†	33	30	33	3.45	+ 0.96	1.02	0	9	8	18	5	w.	Robert E. Tracht.
Vickery	Sandusky	588	19	66.7	+ 1.2	93	10	33	30	39	3.17	+ 0.83	0.90	0	9	8	18	4	sw.	John W. Barr.
Wapakoneta	Auglaize	898	29	66.8	.....	92	1†	32	30	28	2.86	.....	1.04	0	14	16	6	6	sw.	Dr. Wm. Kayser.
Wauseon	Fulton	780	40	66.2	+ 2.6	95	10	32	30	38	3.22	+ 0.64	1.45	0	14	10	12	7	sw.	Thomas Mikeseil.
Wickliffe	Lake	740	.....	.....	.....	.....	.....	.....	.....	.....	3.32	.....	0.93	0	9	15	.....	.....	sw.	C. M. Richardson.
Pennsylvania.																				
Erie	Erie	658	39	66.2	+ 2.3	86	10	41	30	22	4.59	+ 1.10	1.43	0	13	7	13	10	s.	U. S. Weather Bureau
New York.																				
Adams Center	Jefferson	540	21	62.7	+ 1.6	83	10	30	30	25	6.78	+ 3.31	0.88	T	24	3	12	15	s.	A. E. Cooley.
Angelica	Adams	1,340	29	61.7	+ 2.8	86	10	28	30	34	3.41	+ 0.44	0.74	0	15	1	15	14	w.	Charles P. Arnold.
Appleton	Niagara	270	21	63.0	+ 2.0	88	10	34	30	30	8.23	+ 5.15	2.15	0	13	14	12	4	s.	H. A. Van Wagoner.
Auburn	Cayuga	715	43	63.0	+ 2.0	88	10	34	30	30	3.03	+ 0.37	0.72	0	9	11	9	10	s.	A. H. Underwood.
Avon	Livingston	685	17	64.4	+ 2.5	90	10	32	30	30	6.84	+ 2.41	0.47	0	23	4	5	21	w.	W. G. Markham.
Blue Mountain Lake	Hamilton	1,750	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	16	6	14	10	sw.	B. F. Merwin.
Brockport	Monroe	537	16	64.3	+ 1.1	88	10	35	30	27	2.26	- 0.34	0.36	0	16	6	14	10	sw.	W. H. Lemmon.
Buffalo	Erie	767	61	64.6	+ 1.7	85	4	41	30	21	3.31	+ 0.13	1.17	0	14	11	7	12	sw.	U. S. Weather Bureau
Canton	St. Lawrence	448	18	58.0	+ 1.3	82	10	31	30	31	4.40	+ 1.59	0.78	T	15	3	7	20	sw.	Do.
Cape Vincent	Jefferson	246	7	61.2	.....	82	10	36	30	23	5.39	.....	0.72	0	15	7	4	19	s.	J. Harry Grapotte.
Chazy	Clinton	151	12	58.4	+ 1.2	78	5	31	30	29	5.42	+ 2.45	1.28	0	14	9	10	12	sw.	W. R. North.
Chestnut Lawn	Wyoming	0	0	64.3	.....	88	10	31	30	28	3.68	.....	1.15	0	15	13	10	7	w.	Charles Peterson.
Dannemora	Clinton	1,490	7	57.4	- 0.9	76	11	30	30	22	5.34	- 0.56	1.42	T	17	5	4	21	w.	Dr. W. N. Thayer.
Elba	Genesee	500	13	61.8	- 0.7	88	10	32	30	29	2.00	- 0.56	0.34	0	11	13	6	11	sw.	Joseph S. Wilford.
Fayetteville	Onondaga	530	11	62.8	- 0.7	88	10	33	30	33	4.77	+ 2.32	0.91	0	16	6	14	10	sw.	Dana H. Wells.
Gabriels	Franklin	1,729	10	55.4	- 1.0	81	7	28	28	40	6.23	.....	1.10	T	12	9	5	16	w.	Gabriels Sanitarium
Harkness	Clinton	622	10	58.3	+ 1.0	81	7	31	30	29	5.57	+ 2.84	0.83	0	18	14	7	8	w.	J. W. Harkness.
Hemlock Lake	Livingston	900	14	64.8	+ 2.0	87	2	38	30	25	4.64	+ 2.43	1.46	T	14	14	8	8	sw.	Bernard P. McGrady.
Hunt	do.	1,321	13	63.8	+ 1.2	90	7	30	30	30	4.02	+ 1.56	0.90	0	11	10	12	8	nw.	W. S. Barager.
Ithaca	Tompkins	928	34	62.4	+ 1.8	86	7	32	30	32	7.46	+ 4.43	2.48	0	18	10	12	8	sw.	U. S. Weather Bureau.
Keene Valley	Essex	1,000	14	59.4	+ 0.7	94	10	33	28	51	5.44	+ 1.98	0.83	0	15	11	5	14	sw.	E. R. Wells.
King Ferry	Cayuga	0	0	64.3	.....	88	10	31	30	28	4.75	+ 2.31	1.00	0	13	10	11	9	sw.	Lucius A. Goodyear.
Lake George	Warren	350	15	59.7	- 0.9	85	7	30	30	32	5.60	+ 1.98	1.75	0	13	6	9	15	w.	Charles Forsell.
Lake Placid Club	Essex	1,864	4	50.0	.....	76	9	26	30	32	6.01	.....	1.72	0.5	20	8	12	10	w.	Henry Van Hovenberg.
Lauterbrunnen	Wyoming	0	0	64.0	.....	89	10	30	30	30	4.12	.....	1.15	0	15	9	12	9	sw.	James O. Howard.
Lockport	Niagara	520	25	64.3	+ 1.9	88	10	37	30	25	2.21	- 0.60	0.55	0	11	10	10	10	sw.	Robert N. Clark.
Lowville	Lewis	900	45	59.7	+ 1.9	87	9	27	30	39	4.00	+ 1.53	1.14	0	16	2	22	6	sw.	Prof. W. F. H. Breeze.
Moir	Franklin	200	12	57.2	- 3.8	82	10	32	29†	32	7.11	+ 3.73	0.82	T	18	2	14	14	w.	C. E. McBride.
Nehasane	Hamilton	1,750	4	55.3	.....	79	7	28	28†	38	5.09	.....	1.21	T	21	5	13	12	w.	L. W. Brown.
North Lake	Herkimer	1,822	11	56.6	.....	79	6†	30	30	32	7.75	.....	1.73	0	13	10	4	16	sw.	John F. Redmond.
Ogdensburg	St. Lawrence	1,75	28	.....	.....	82	7	39	30	24	4.78	+ 2.03	0.70	T	16	3	14	13	sw.	State Hospital.
Old Forge	Herkimer	1,733	4	55.8	- 1.1	79	4†	29	28	32	5.07	.....	1.17	0	18	11	4	15	w.	Mrs. S. W. Nelson.
Oswego	Cattaraugus	335	42	61.6	- 1.1	88	10	37	30	29	4.50	+ 1.69	0.86	0	16	4	14	12	s.	U. S. Weather Bureau.
Otto	Oswego	1,410	8	66.0	.....	86	3†	30	30	32	1.78	.....	0.69	0	9	13	12	5	sw.	William J. Winke.
Palermo	Oswego	460	53	.....	.....	.....	.....	.....	.....	.....	6.20	+ 3.13	1.40	0	17	15	7	8	sw.	E. B. Bartlett.
Perry City	Schuyler	1,038	32	59.3	- 0.4	85	10	27	30	35	6.84	+ 4.10	1.87	0	17	5	16	9	sw.	W. H. Jeffers.
Philadelphia	Jefferson	485	6	60.4	.....	83	10†	29	30	29	4.40	.....	0.61	0	22	4	18	8	sw.	E. D. Babcock.
Potsdam	St. Lawrence	300	36	58.8	+ 1.0	83	10	33	30	32	5.59	+ 2.51	0.80	0	16	.....	.....	.....	sw.	A. E. Sutherland.

TABLE 2.—Daily precipitation for September, 1912. District No. 4—Continued.

Stations.	Watershed.	Day of month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
<i>Michigan—Lower Peninsula—Con.</i>																																			
Arbela	Saginaw				.33										1.51		.56	.41	.14			.56										.14	.31	.32	4.28
Battlecreek	Kalamazoo			T.							.10			.04	.17		.27	.28	.28			.40										.05	.07	1.38	
Bay City	Saginaw				.31												.45	.73	.73												.31		1.80		
Benzonia	Betsy	.78	1.40		.13	.39	T.		.61	.07					.50	T.	.32	.09	.09	T.	.37	.03				.10							4.88		
Berlin			.31		.81										T.	.29	.69	.42	.15			.95			.01		.14	T.	.18	.25		4.20			
Big Rapids	Muskegon		.80		.26	.28		.18							1.00		.44				.04	.16											3.16		
Blissfield	Raisin		.31	.26		.08									.45	.01	.32	.39	.14			1.24	T.				.15				.01		3.36		
Bloomington	Lake Michigan		T.												T.	1.04	.17	.05	.22			.50	.18					.02	.03				2.23		
Cadillac	Manistee	.95	1.63		.07	.43			1.35						T.	1.63	.43				.08	.10	.09										6.76		
Cassopolis	St. Joseph	1.50																													1.80		3.30		
Charlevoix	Lake Michigan	1.12	1.02							.36						.32	.08		.12			.15									.05	.08	3.17		
Charlotte	Kalamazoo			T.							.40					.27			T.	T.		.46											1.56		
Cheboygan	Cheboygan	2.00			1.10				T.	.82					1.10		.20	.10	T.	T.	.50												5.82		
Clinton			.37		.47						.18				.11	T.	.29	.53	.15			.80											3.12		
Coldwater	St. Joseph			.25											.12	.25	.50	.45	.43			.60											2.67		
Concord	Kalamazoo									.25					.08	.35	.65				.20	.35											2.38		
Croton	Muskegon	.10	.06		.07										.70	T.	.20	.20	.03	T.	.08	T.	T.										1.64		
Detroit	Detroit	T.	.16	T.		.84					.16		.01	.08	.24	.39	.44	.13			.15	.75											3.55		
Durand	Saginaw													.15	.05	.67		.03	.06			.47											2.90		
East Tawas	Lake Huron	.20	.80						T.	T.					.90	.15	.10	.40			.10	.25											4.93		
Eloise	Rouge	T.	.01	.12	1.00					.22				.08	.41	.47	.73	.71			1.06												3.44		
Flint	Saginaw			.08						.10					.12	.50	.08	.65			.07		.13										4.27		
Frankfort	Betsy		.15		.15			.90		.20					.52	.36	.10	.24			.42	.23											2.70		
Ganges	Lake Michigan		.03	.06						.12					1.10	.20	.16	.51	.03			.32											4.27		
Gaylord	Cheboygan	1.34	1.23		T.	.07				.11	T.				.26		.07	.03	T.			.32											3.63		
Gladwin	Saginaw																																	2.49	
Grand Haven	Grand	.01	.06		.10					.03					.76	T.	.37	.20	.72	.09	.02	.01											3.42		
Grand Rapids	do.	T.	.11		T.										1.23	T.	.49	.18	.24	.01	.31	.03	T.										2.59		
Grape	Raisin		.04	.14		.20				.07					.03	.18	.17	.45	.07			1.09												2.62	
Grass Lake	Grand									.45					.12	T.	1.02	.18				.65												3.14	
Grayling	Au Sable	1.43						.21		.03					.80				T.	T.	.03	.13												2.76	
Greenville	Grand			.05				.15							1.18		.20				.45	.15												4.07	
Harbor Beach	Lake Huron	.10	1.20							.30					1.30		.10		.30	.10		.77											5.06		
Harrison	Saginaw		2.20		.06	.20			.34						1.43		.29		.11	.13	.05	.25											4.78		
Harrisville	Lake Huron	.36	.51		T.				.66	.50	T.	1.00	1.10		1.05	.08	.02	.53	.52	T.	.30												3.34		
Hart	Pentwater									.50	.40							.12				.12			.12									3.08	
Hayes	Pigeon		1.04						T.						.78		.17	T.	.37			.42											3.37		
Highland	Huron				.20						.38				.41		.54	.27				.95												2.84	
Hillsdale	St. Joseph																																	4.02	
Holland	Lake Michigan		.02								.36				.87	.01	.35	.10	.65	.07	.08	.06					.02							3.90	
Howell	Saginaw		.05	.75		.35				.40					.10		.40	.50	.10		.80													3.37	
Ivan	Manistee	.48	.88		.06	.05		1.15		.09					.70		.25			.06	.06	.11												4.94	
Jackson	Grand		.10	.12		.04				.35					.15	.08	.80	.15	.07		.21	.88												4.53	
Jeddo	St. Clair		1.52		.68					T.					.28		.75	.50	.25			.30	T.											3.33	
Kalamazoo	Kalamazoo			.80						.70					.60	.80	.45	.15	.46		.17	.15												3.36	
Lansing (Agricultural College)	Grand		.12		.17					.08	.78				.05	.12		.78	.06	.03		.09	.54											3.72	
Lansing (Capitol)	do.		.25		.10					.72					T.	.10	.02	.57	.27	.13	.05	.52	.15											4.50	
Lapeer	Saginaw				.40										.05		.65	.85	.13			.88												5.81	
Ludington	Pere Marquette	.15				.42				.37					1.92	T.	.48	.52			.26													2.27	
Luther	Manistee	.26	1.39		.22	.63		1.26		.06					1.35	T.	.53	T.	.01	.04	.01	.05												3.26	
Mackinaw	Lake Huron																																		4.32
Mancelona	Lake Michigan	1.30	.60		T.	T.		.05		.10					.10		T.	T.	.02		T.													2.65	
Manistee	Manistee		.26	.28					1.00						.75	.24	.10	.12			.51													6.53	
Marshall	Kalamazoo																																		3.46
Midland	Saginaw	.40	.22		.20		.10				T.				1.00		.20	.10	1.10			.60												2.38	
Morenci	Maumee			.62							T.				.11		.07	.19		.48		.27	.74											4.53	
Mount Clemens	Clinton	T.	.25	.75		.75	T.			.75					.50	.23	.69	1.30	.10	T.		.93												1.87	
Mount Pleasant	Saginaw	.19	.92					.80							.15	.39	.10	.32	.08	.40		.10	.15	.02										4.27	
Muskegon	Muskegon		.10		.05					.10					1.30	.10	.33	.10			.10	.15	.02											4.33	
Old Mission	Lake Michigan	1.69	1.10		.02	T.		.36		.14					.33				.37	.40		.12												1.97	
Olivet	Kalamazoo		T.	.04							.48				.06	.19			.28	.04	.02	T.	.48												2.52
Omer	Lake Huron																																		2.45
Onaway	Cheboygan																																		4.47
Owosso	Saginaw			.36		.08			.01		.12	.01			.02	.34		.30	.08	.05	.07		.53	.02										2.60	
Petoskey	Lake Michigan	1.38	.22		.03	.02			.50								.18		.04		.04		</												

TABLE 2.—Daily precipitation for September, 1912. District No. 4—Continued.

Stations.	Watershed.	Day of month.																														Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
<i>Ohio—Continued.</i>																																	
Hillhouse	Lake Erie	.66	.15			.02									.40	.02		.15	.22	.10		.30	1.16	.04	T.	.08			.10	T.	3.40		
Hiram	do	.05	.50	.25		T.	.35								.11	.45		.35	.07	.12		.35	.84	.03	T.	T.			.05	T.	3.31		
Hudson	do	.10	2.10	.58												.03	.65		.40	.03		.70	.60			.10					T.	5.51	
Lima	Maumee														T.	.61			.15	.12		1.27	.41			.12				T.	3.80		
Medina	Lake Erie	.76	.36			T.								T.	.20	.10	.58		.60	T.	.64	.32			.34						2.48		
Montpelier	Maumee	.30	T.			T.									.20	.10	.34		.60	T.		.32			.34						2.20		
Napoleon	do							1.00							.20	.51	.67		.09	.24	.26	.97			.11						3.46		
New Bremen	do														.20	.51	.67		.09	.24	.26	.97			.11						6.20		
North Royalton	Lake Erie	2.18	1.05													.29	.74		.29	.08	.18	.82			.14	.02				.08	2.76		
Norwalk	do	.53	.46	.03											.06	.62	T.		.28	.18		.58	.15	T.	.02					.03	3.61		
Oberlin	do	T.	.60	.12		.06									.06	.62	T.		.28	.18		.58	.15	T.	.02					.09	2.76		
Ottawa	Maumee	.20													.02	.06		.05	.26	T.		.30	1.40			.10					2.39		
Sandusky	Lake Erie	.01	.67		T.	T.									T.	.68		.22	.14	T.		.91		T.		.16				T.	2.79		
Tiffin	Sandusky	.04	T.			T.									.06	.48	T.	.18	.76	T.		.86			.28					T.	2.66		
Toledo	Maumee	.16				T.									T.	.39		.38	.13	.07		.21	1.27		T.	T.	.08			T.	2.69		
Upper Sandusky	Sandusky	T.	.20												.70	.41		T.	1.02	.20		.92	T.							T.	3.45		
Vickery	Lake Erie	.04	.49	.01											.67	.30	.50	.04				.90	.50			.22						3.17	
Wapakoneta	Maumee						.03								.48	.67	.25	.30				1.04				.09						2.86	
Wauseon	do	.05	.09	.01		.11		T.							.02	.07	.73	.02	.06			.94	.51			.57				.02	3.22		
Wickliffe	Lake Erie	.50	.12												.02	.43		.48	.18			.93	.61			.02				.05	T.	3.32	
<i>Pennsylvania.</i>																																	
Erie	Lake Erie	.56	1.00			.12					.01				T.	.08			.39	.05	.66		.51	.96			.05			.10	.10	4.59	
<i>New York.</i>																																	
Adams Center	Lake Ontario	.31	.20	.62	.12	.24	.20	.32	T.	T.	.30	.14	.07	T.	.02	.88	.24		.74	.08	.34	.04		.24	.14	.04	.06	.62	T.	.62	.20	6.78	
Angelica	Genesee	.70	.09	T.		.04	.04					.39				.65	.09		.23	.05			.29	.52	.02	.13				.14	.03	3.41	
Appleton	Lake Ontario																																
Auburn	Oswego	1.35	.52		.30					.02	.22				2.15			T.	.53	.10			.82	1.18		.62				.36	.06	8.23	
Ayon	Genesee	.19	.72								.25				.29	T.		.70					.43	.24									3.03
Blue Muntain Lake	Raquette	.37	.15	.20	.27	T.	.47	T.			.18	.27	.26		.33	.25	.37	.26	.33	.22	.25	.24	.18	.47	.27	.37	.43			.23	.47	6.84	
Brockport	Lake Ontario	.28	.22			T.	.14				.14				.09	.20	.12		.24	.04	.05		.36	.17	.02	T.		.01	.12	.06		2.26	
Buffalo	Lake Erie	.60	.14			T.					.20				.14	.09	T.		.11	.38	.83		.07	.43	.14		.04		.08	.06		3.31	
Canton	Grass	.24	.21	T.	.01	.53	.06	T.			.01	.36	T.		T.	.53	.40		T.	.22	.24	.53	T.		.35	.07	.14	.11	.01	.05	.73	T.	4.40
Cape Vincent	St. Lawrence	.45	.35			.67					.72				.05	.40		.20		.03	.36			.55	.43		.28		.34	.13	.50	5.39	
Chazy	Champlain	.30			.50	.22	.37			.03	.33				.20			1.00		1.28			.12	.13					.55	.05	5.42		
Chestnut Lawn	Genesee	1.15	.85		.02	.04	.05				.08				.06	.27		.48		.01			.28	.19			.04		.09	.07	6.48		
Danmemora	Champlain	.15	.04	T.		T.	.02	.90			.25	.54			.50	.36		.43	.04	1.42	.02		.15	.19	T.		.03		.25	.05	5.34		
Eiba	Lake Ontario	.23	.17			T.	.11				.19				T.	.23	.15	.20		.10			.34	.06		T.		T.	.22		2.00		
Fayetteville	Oswego	.66	.06	.20			.39				.09				T.	.04	.61		.18	.03	.08		.91	.52	.51		.10		.34	.05	4.77		
Gabriels	St. Regis	.80	T.	.15		T.	.60	T.			.45	T.			T.	1.00		1.10		.70			.25		.10		.15		.90	.03	6.23		
Harkness	L. Champlain	.46	.02	.02		.03	.37	.23			.31	.38				.53	.66		.46	.04	.38		.12	.60			.10		.83	.03	5.57		
Hemlock Lake	Genesee	.46	.94			.03					.16					1.46		.65	.04	.01			.22	.26		.18		.14	.09	.44	6.04		
Hunt	do	.90	.65		.02						.14				.83		.44		.44				.27	.25		.13		.15	.24		4.02		
Ithaca	Oswego	2.47	.15		.76	.03				.82	.22				.02	.50		.05	.13	.01	T.		.83	.70	.03	.25	.01	.43	.05	7.46			
Keene Valley	Ausable	.83	.12			.38					.32				.28	.17		.43	.38	.26	.63		.72		.05		.07	.64	.15	5.44			
King Ferry	Oswego	1.00	.21		.28						.15				.03	.64		.10	.20				.90	.57	.13	.15		.39	T.	4.75			
Lake George	L. Champlain	1.75	.15	.16		T.					.06				T.	1.30	.35		.63	.46	.15	T.		.05	.11		.09	.27	.12	5.60			
Lake Placid Club	Ausable, W. Br.	1.03	.05	T.		.10	.47	.02			.42	T.			.09	1.72	.23	T.	.28	.14	.49	.02		.09	.05	.31	.12	.09	.08	.21	6.01		
Lauterbrunnen	Genesee	1.15	.85			T.	.02	.02			.09				.58	.23		.46		.03			.29	.20		.04	.03	.05	.08	4.12			
Lockport	Lake Ontario	.41	.07			T.	.05	.24			.13				T.	.15		.09		.07			.55	.19		T.		.26		2.21			
Lowville	Black	.10	.14	1.14	.02		.27				.08				.02		1.00		.25		.02		.03	.82	.51		.02		.05	.13	4.60		
Moir	St. Lawrence	.56	.02	.11		T.	.64	.21			.52	.28	T.		.60		.40	.40	.60	.26	.03	T.		.53	.28	.20	.63		.82	T.	7.11		
Nehasane	Black	.16	.04	.45	.02	.05	1.21				T.	.33		.03	.02	.67	.26		.27	.04	.13	.02		.26	.06	.55		.06	.35	.11	5.09		
North Lake	do	.42		.93		.90	.79				.33				1.73		.59	.10					.49		.83		.15	.44	.05	7.75			
Ogdensburg	St. Lawrence	.46		.17		.16	.50	T.			.20				.20	.38		.20	.11	.70			.52	.14	.10	.20	.14	.60	T.	4.78			
Old Forge	Black	.40	.03	1.17			.10	.08			.02	.10			.03	.90	.10		.27	.09			.38	.40	.06	.78		.10	.38	.06	5.07		
Oswego	Lake Ontario	.18	.03			.86					T.	.40			.01	.74		.32	.01	.01			.83	.46	.05	.10		.14	.26	4.50			
Otto	Lake Erie	.69	.15			.08					.17	.28			.08	.18					.06								.09	1.78			
Palermo	Lake Ontario	.10	.10	.30		.05	1.40				.10				.58	.60		.28	.05				.41	1.00	.35	.10	.05	.31	.42	6.20			
Perry City	Oswego	1.87	.24		.33					.16	.28				.30	.33	.15		.13	.23	.10		.75	1.08	.20	.14		.45	.10	6.84			
Philadelph	St. Lawrence	.15	.04	.06		.51	.08				.07	.41	.07		.06	.33	.19		.61	.01	.18	.01		.41		.43	.07	.04	.09	.53	.05	4.40	
Potsdam	Raquette	.80	.17			.45					.46					.60		.05	.31	.61	.38			.05	.37	.28	.02	.20	.48	.36	5.59		
Raquette Lake	do	.20	.06	.61		.09	.55				.32		.03	.04	.09	1.09		.22	.17	.08	.11		.23		1.14		.08		.46	.14	5.71		
Rochester	Genesee	.26	.48			.06					.12				T.	.36	T.		.23	T.	.02		T.	.66	.14		.02		T.	.09	1.1	2.55	
Romulus	Oswego	.30	.21		.63						.08				.11	.10		.15	.06				.71	.98	.14	.08		.14	.09	3.78			
Scottsville	do																																

TABLE 3.—Maximum and minimum temperatures for September, 1912. District No. 4, Lake Region.

Date.	Lower Michigan.						Ohio.								Erie, Pa.		New York.								Vermont.			
	Detroit.		Muskegon.		Saginaw, West Side.		Cleveland.		Lima.		Sandusky.		Toledo.		Max.	Min.	Buffalo.		Canton.		Rochester.		Syracuse.		Burlington.		Northfield.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	89	74	82	69	87	65	85	72	91	73	91	71	92	76	84	62	76	59	58	47	82	58	77	58	60	42	57	36
2....	89	71	81	70	83	70	85	70	91	72	92	71	91	72	82	68	75	64	72	56	78	58	73	59	62	54	56	50
3....	79	64	77	61	76	57	74	68	83	69	76	69	80	67	79	68	81	63	69	63	78	64	76	61	69	57	68	53
4....	78	63	82	61	82	62	75	69	84	64	78	70	80	65	84	68	85	64	76	60	82	61	81	58	78	62	79	54
5....	86	63	86	71	90	66	86	70	91	65	90	69	91	68	82	69	77	68	73	58	85	66	79	66	68	61	72	50
6....	91	70	87	70	92	69	87	72	92	69	91	74	93	74	82	70	79	69	69	60	79	70	76	66	73	57	77	54
7....	79	67	82	62	85	61	78	64	82	67	77	65	80	67	78	67	78	68	80	61	80	61	80	65	77	56	71	51
8....	82	65	87	60	85	56	77	58	86	54	79	60	87	63	76	60	74	64	75	56	81	57	76	62	77	58	75	50
9....	90	70	88	71	92	64	84	66	89	60	87	68	93	67	81	67	80	67	72	54	77	62	78	62	69	51	69	46
10....	92	71	88	70	92	68	88	70	91	63	91	72	94	72	86	70	81	70	82	53	90	65	85	57	74	51	76	43
11....	77	56	74	60	76	60	77	62	79	65	76	64	79	59	78	62	74	58	75	44	73	59	78	53	75	51	76	48
12....	73	52	72	49	76	47	65	57	72	54	68	58	74	53	66	57	67	53	61	39	70	52	66	45	62	43	63	38
13....	75	59	73	55	73	54	74	53	78	48	74	53	73	56	76	54	75	59	72	44	76	54	73	55	70	47	71	44
14....	77	62	75	64	74	59	81	67	84	53	78	64	78	63	77	69	74	66	73	61	75	66	76	64	67	60	69	50
15....	75	59	70	63	68	62	73	67	77	61	73	66	76	62	79	64	78	60	76	55	77	61	79	62	74	51	74	58
16....	65	54	67	50	65	50	67	54	69	57	66	56	66	54	65	57	63	54	62	42	61	49	62	47	59	42	61	38
17....	66	54	67	55	65	53	72	52	74	53	71	52	73	53	67	51	67	52	65	43	68	46	69	44	66	41	68	34
18....	71	58	66	52	69	58	72	63	72	58	72	58	73	58	71	62	71	59	63	48	75	59	76	57	64	48	68	45
19....	60	49	62	48	58	47	65	54	48	64	51	64	50	68	55	67	55	66	56	73	56	73	57	61	61	67	56	56
20....	73	51	70	53	72	50	74	55	75	49	76	54	75	53	68	54	66	53	66	46	60	54	65	51	61	48	65	43
21....	76	60	67	57	79	55	81	58	79	51	81	56	79	57	79	58	73	53	52	44	64	51	65	48	54	47	53	46
22....	66	51	67	52	66	53	68	57	61	54	67	53	67	52	75	62	75	62	71	40	75	55	66	55	63	50	63	47
23....	67	48	67	40	71	45	64	56	70	45	67	53	66	49	63	55	64	54	60	58	63	57	60	54	58	55	59	52
24....	86	56	71	41	67	49	68	61	70	49	69	60	71	58	69	60	68	58	69	57	62	59	65	52	64	55	63	53
25....	80	57	71	54	79	57	78	57	81	54	82	55	81	58	79	62	77	63	69	49	77	58	65	51	65	49	64	40
26....	60	42	55	46	71	43	60	53	61	45	68	50	61	45	64	55	68	50	71	47	74	82	68	55	69	49	69	36
27....	58	39	54	35	55	35	56	47	61	35	58	42	63	39	55	46	57	44	58	45	57	45	56	48	62	49	58	33
28....	57	44	50	39	50	40	63	46	68	37	64	46	64	47	64	45	68	46	56	37	59	43	61	41	55	44	55	35
29....	56	42	55	35	56	35	56	51	44	56	47	56	43	54	48	50	42	48	35	52	42	54	37	46	36	48	35	35
30....	57	41	60	49	56	37	57	42	59	32	59	40	61	41	56	41	57	41	52	31	56	36	54	36	50	35	50	33
Mns..	73.7	57.1	71.8	55.4	73.7	54.2	73.4	59.7	78.8	54.9	74.7	58.9	76.0	58.0	72.9	59.5	71.2	57.9	66.5	49.5	72.2	55.9	70.4	54.2	65.2	50.4	65.6	45.4

Date.	Duluth, Minn.		Wisconsin.						Chicago, Ill.		Fort Wayne, Ind.		Upper Michigan.						Lower Michigan.										
			Florence.		Green Bay.		Milwaukee.						Escanaba.		Ewen.		Houghton.		Marquette.		Sault Ste. Marie.		Alpena.		Battle Creek.		Cadillac.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	58	53	74	54	84	61	88	66	93	78	93	75	69	56	.....	.....	62	54	74	52	63	57	82	61	89	74	78	64
2....	76	55	74	61	80	63	80	69	86	71	93	70	78	58	.....	.....	69	51	73	57	66	54	80	57	90	73	77	67
3....	67	55	78	40	74	57	73	63	74	68	84	68	71	52	.....	.....	72	47	69	51	75	50	71	53	84	68	78	53
4....	70	59	.....	.....	74	59	76	65	83	71	84	62	65	54	.....	.....	75	54	70	56	74	51	69	53	86	61	72	60
5....	77	59	86	49	88	68	94	73	94	77	94	69	79	64	.....	.....	82	62	87	65	82	63	82	65	90	67	79	66
6....	78	60	81	59	86	69	93	72	94	76	93	72	87	59	.....	.....	77	62	83	63	82	56	94	63	90	79	87	65
7....	80	57	82	50	81	61	80	68	78	73	81	63	75	53	.....	.....	77	58	85	61	75	50	84	57	85	65	81	70
8....	69	60	78	59	82	64	92	66	89	71	88	60	72	60	.....	.....	81	56	77	61	73	51	77	55	90	61	79	58
9....	79	57	90	59	90	71	93	73	91	75	91	65	80	63	.....	.....	82	60	86	62	71	60	73	64	92	74	89	65
10....	70	55	72	63	80	67	86	71	93	75	92	68	78	58	.....	.....	71	57	77	57	72	56	91	65	92	63	84	67
11....	70	50	67	48	70	57	71	59	78	67	77	58	68	52	.....	.....	66	50	63	53	60	49	65	49	81	65	72	55
12....	78	54	76	51	79	54	78	56	73	60	72	52	69	52	.....	.....	73	57	71	58	70	48	77	48	75	47	74	48
13....	69	51	73	52	71	61	73	62	76	63	78	54	70	58	.....	.....	68	55	75	61	74	51	74	54	78	54	69	58
14....	65	44	69	56	75	61	74	63	73	66	86	62	70	58	.....	.....	64	50	70	53	73	57	70	60	75	60	76	61
15....	56	46	64	49	68	53	68	61	71	66	80	64	64	49	.....	.....	54	45	57	48	66	47	65	53	74	65	71	58
16....	52	48	56	49	61	50	64	58	69	62	72	56	57	48	.....	.....	57	48	57	48	61	41	60	49	69	50	66	46
17....	57	42	.....	.....	62	55	64	56	68	60	68	58	59	54	.....	.....	58	50	58	52	60	48	62	51	65	55	61	53
18....	64	44	61	45	60	52	62	49	66	51	70	51	64	50	.....	.....	61	49	62	47	62	52	68	57	69	60	67	56
19....	60	44	62	46	63	51	67	48	68	51	64	49	57	51	.....	.....	61	47	56	49	63	49	63	52	61	48	63	44
20....	54	42	67	49	67	51	67	55	76	58	77	51	64	49	.....	.....	64	53	67	49	66	45	65	47	61	50	67	49
21....	54	39	61	48	55	49	61	51	69	54	81	56	63	50	.....	.....	56	49	60	48	70	55	67	62	75	55	66	59
22....	54	42	58	47	60	49	66	48	69	54	63	51	61	44	.....	.....	57	48	62	48	62	47	63	50	66	50	63	53
23....	56	43	62	38	70	47	67	53	70	57	69	45	60	41	.....	.....	6											